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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,365	09/26/2003	Yong Chcol Park	0465-1028P	6887
2292	7590	02/26/2008		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER CHOW, LIXI	
			ART UNIT 2627	PAPER NUMBER
			NOTIFICATION DATE 02/26/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/670,365	PARK ET AL.	
	Examiner	Art Unit	
	Lixi Chow	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51, 54, 55, 57, 63 and 64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51, 54, 55, 57, 63 and 64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/17/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 51, 55, 57, 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa (US 6,615,363) in view of Ozaki et al. (US 5,319,626; hereafter Ozaki).

Regarding claim 51:

Fukasawa discloses a method for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary management area, a second management area and a data area, the data area having a spare area (see col. 5, lines 13-43; the second management area of Fukasawa corresponds to the temporary management area as claimed), the method comprising:

(a) writing data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area (see col. 5, lines 24-26);

(b) writing first management information onto the first management area, the first management information including a location of at least the defective unit and the replacement unit (see col. 5, lines 22-30);

(c) updating the first management information based on the (a) and (b) steps until the recording medium is to be finalized (see Fig. 4; a defect entry is recorded when it detects that a defect occurs); and

(d) writing, at finalization of the recording medium, the updated first management information written in the first management area onto the second management area (see col. 3, lines 1-17 and col. 5, lines 30-35).

Fukasawa fails to teach whether a second management information is recorded onto the first management area, where the second management information includes information about the location of the first management information. However, Ozaki discloses a method for management a defective unit on a recording medium, the method comprising:

providing a second management information on a management area (see col. 1, lines 34-37; DDS corresponds to the second management information, and DMA corresponds to the management area), the second management information includes a location of a defective list information (each of the DMA includes DDS which contains address information of the defective list information); and

modifying the second management information on the management area (see col. 1, lines 62-65; when the SDL is modified, the DDS is also modified).

Fukasawa essentially teaches all the features of claim 1 except for the detail of the second management information. However, Ozaki shows that a defect management area DMA inherently includes a disc definition structure DDS, and when the secondary defect list SDL is updated, at least the DDS is changed/modified.

The combination of Fukasawa and Ozaki reveals that when writing/copying/updating the defective list information onto the main defect management area, the DDS is modified to include the location of the defective list information in the main defect management area. This is evident because without modifying the DDS, the updated DDS in the main defect management area would not accurately reflect the correct information about the location of the newly written/copied/updated defective list information in the main defect management area.

Therefore, it would have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fukasawa and Ozaki, because Ozaki shows that it is necessary to modify DDS when update is performed in the main defect management area.

Regarding claim 55:

Claim 55 recites similar limitations as in claim 51; therefore, claim 55 is rejected under the same reasons set forth in claim 51. In addition, Fukasawa also discloses an apparatus (see Fig. 9) for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary management area, a second management area and a data area having a spare area, the apparatus comprising:

an optical pickup configured to write/read data to/from the recording medium (see Fig. 9, element 6);

a servo unit configured to control the pickup to maintain a distance between the pickup and the recording medium (see Fig. 9, element 9); and

a controller (see Fig. 9, element 4) configured to control the servo unit and pickup to write data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area (see col. 5, lines 24-26), and to write first management information including a location of at least the defective unit and the replacement unit (see col. 5, lines 22-30).

Regarding claim 57:

Claim 57 is essentially the same as claim 51. In addition to claim 51, Fukasawa also discloses at least one second management area allocated outside of the data area (see Fig. 1, area 10a corresponds to the second management area). Hence, claim 57 is rejected under the same reasons set forth in claim 51.

Regarding claim 63:

Fukasawa discloses a write-once recording medium (see Fig. 1), comprising:

at least one recording layer including a lead-in area (area 10a), a data area (area 501) and a lead-out area (area 10b), the data area including at least one spare area having a replacement unit (area 401), the spare area allocated on an inner and/or outer portion of the data area for replacement-writing data written in a defective unit of the data area onto the replacement unit;

at least one temporary defect management area (TDMA) allocated within the data area and/or outside of the data area for writing temporary defect list (TDFL) pertaining to the defective unit (see Fig. 1, area 201 corresponds to the TDMA); and

at least one defect management area (DMA) allocated in the lead-in area and/or the lead-out area for writing therein last written TDFL from the TDMA when the write-once recording medium is to be finalized (see Fig. 1, area 10a corresponds to the DMA, and during finalization, information from TDMA is copied into DMA).

Fukasawa fails to show whether the TDMA includes temporary disc definition structure (TDDS) in the same manner as in claim 51 above. However, Ozaki shows that a defect management area DMA inherently includes a disc definition structure DDS, and when the secondary defect list SDL is updated, at least the DDS is changed/modified. Therefore, the combination of Fukasawa and Ozaki discloses all the elements in claim 63 (see explanation in claim 51, above).

Regarding claim 64:

Fukasawa discloses the write-once recording medium as claimed in claim 63, wherein the write-once recording medium is finalized when a user data area of the data area is full (it is inherent that the write-once type medium is finalized when it is full; also, see col. 5, lines 30-35).

2. Claims 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa in view of Ozaki et al. as applied to claim 51 above, and further in view of Kim et al. (US 6,564,345).

Regarding claim 54

Fukasawa fails to disclose the first management information is located outside of the data area; however, Kim discloses a method of defect management, wherein a first management area is located outside of the data area (see Fig. 10; T-PDL corresponds to the first management area, and Fig. 10 shows plurality of location where T-PDL can be arranged).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Fukasawa by recording the temporary management area outside of the data area, because Kim shows that it is a matter of design choice.

Response to Arguments

3. Applicant's arguments with respect to claims 51, 54, 55, 57, 63 and 64 have been considered but are moot in view of the new ground(s) of rejection.

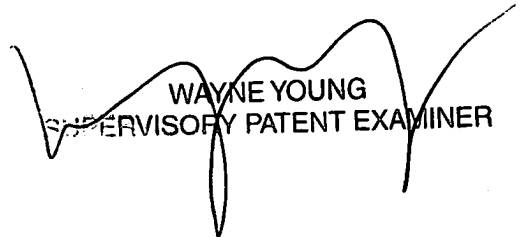
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lixi Chow whose telephone number is 571-272-7571. The examiner can normally be reached on Mon-Fri, 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC 2/19/08


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER